

CLAIMS

1. A pretreatment method for coating comprising treating a substance to be treated by a chemical conversion coating agent 5 to form a chemical conversion coat,

wherein the chemical conversion coating agent comprises: at least one kind selected from the group consisting of zirconium, titanium and hafnium; fluorine; and at least one kind selected from the group consisting of amino group-containing silane 10 coupling agents, hydrolysates thereof and polymers thereof.

2. The pretreatment method for coating according to Claim 1,

wherein at least one kind selected from the group 15 consisting of amino group-containing silane coupling agents, hydrolysates thereof and polymers thereof has a content of 5 to 5,000 ppm as a concentration of solid matter.

3. The pretreatment method for coating according to Claim 20 1 or 2,

wherein the chemical conversion coating agent contains 1 to 5,000 ppm of at least one kind of a chemical conversion reaction accelerator selected from the group consisting of nitrite ion, nitro group-containing compounds, hydroxylamine 25 sulfate, persulfate ion, sulfite ion, hyposulfite ion, peroxides, iron (III) ion, citric acid iron compounds, bromate ion, perchlorinate ion, chlorate ion, chlorite ion, as well as ascorbic acid, citric acid, tartaric acid, malonic acid, succinic acid and salts thereof.

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4. The pretreatment method for coating according to any of Claims 1 to 3,

wherein the chemical conversion coating agent contains 20 to 10,000 ppm of at least one kind selected from the group 35 consisting of zirconium, titanium and hafnium in terms of metal,

and has a pH of 1.5 to 6.5.

5. The pretreatment method for coating according to any of Claims 1 to 4,

5 wherein the chemical conversion coating agent contains at least one kind of adhesion and corrosion resistance imparting agent selected from the group consisting of magnesium ion, zinc ion, calcium ion, aluminum ion, gallium ion, indium ion and copper ion.

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